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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/689,702	10/22/2003	Manhee Jo	244256US8	4650
22850 7590 05/31/2007 OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER SAMUEL, DEWANDA A	
			ART UNIT 2616	PAPER NUMBER
			NOTIFICATION DATE 05/31/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

Office Action Summary

Application No.

10/689,702

Applicant(s)

JO ET AL.

Examiner

DeWanda Samuel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. **Claims 1, 2, 4-6** rejected under 35 U.S.C. 102(e) as being anticipated by Sugai et al. (PG PUB 2004/0085962).

With regard to claim 1, Sugai et al. discloses having *A routing control system, comprising a plurality of transfer devices for transferring packets on a network, and a control device for controlling a transfer route of said packets*, Sugai et al. discloses having a least a network interface ("NIF") 30 that transmit packets to the network relay apparatus such as a router 1('control device") that transfer and routes packets at high speed (fig.1 and Abstract)...also the network 50 in fig. 1 may be a LAN, a WAN or ATM (page 3 paragraph 48 line 10). It is inherent that there are devices in the LAN, a WAN or ATM transferring packets to the network relay device (e.g. router).

wherein said plurality of transfer devices comprise:

generation means for generating a temporary routing control information of said

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packets; Sugai et al. discloses having a network that can be LAN, a WAN or ATM which includes network devices that transmit packets to a network. Those devices have the capability to generate a source or destination address or any other information ("temporary routing control information") that is relevant to the transmission process.

and transmission means for transmitting the temporary routing control information generated by said generation means to said control device, Sugai et al. discloses in fig. 1 that packets are being received from a network such as a LAN 50 L, a WAN or ATM which includes devices that are capable of transferring packets with transfer control information that includes destination information and the action information ("temporary routing control information page 4 paragraph 64 line 16-18) to the network relay apparatus (e.g. router 1, "control device" fig. 1).

and said control device comprises: reception means for receiving the plurality of temporary routing control information transmitted by the transmission means of said plurality of transfer devices; Sugai et al. discloses having a network relay apparatus such as a router 1 ("control device") which includes a plurality of routing processors (RP) 10, a crossbar switch (CS) 20, at least a network interface (NIF) 30, at least a port 40, routing manger (RM) 60 and a power supply (PS) 70...the network relay apparatus such as a router 1 ("control device") have a receiving means that receives at the network interface 30 ("receiving means", page 4 paragraph 57 line 1-8)...again each packet contains with transfer control information that includes destination information

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and the action information ("temporary routing control information", page 4 paragraph 64 line 16-18). It is inferred that the LAN device have the capability to transfer packets to the network relay apparatus (e.g. router 1, "control device" fig. 1).

and control means for controlling the transfer route of said packets by using the plurality of temporary routing control information received by said reception means.

Sugai et al. discloses having a transfer engine 13 within the network relay apparatus (e.g. router 1, "control device" fig. 1) stores the packets received from the network interface in a packet buffer and stores the header information (including the transfer control information) in the header RAM 11. A search engine ("controlling the transfer route") searches the transfer control information and the action information in accordance with the header information and writes it in the header RAM 11. The transfer engine produces an output packet based on the information stored in the packet buffer and the header RAM and outputs it to the transfer destination (Abstract and page 4 paragraph 59 line 1-13). In addition, Sugai et al. discloses in fig.1 packets being received in the network interface 30 ("receiving means").

With regard to claim 2, Sugai et al. teaches the method recited in claim 1.

Wherein the transmission means of said transfer device transmits said temporary routing control information to said control device when the temporary routing control information of said packets is changed or regenerated. Sugai et al. discloses having a network relay apparatus that receives packets via network interface 30 from either a a

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LAN 50, a WAN or ATM which includes device that are capable of transferring packets to the network relay apparatus (e.g. router 1, "control device", page 3 paragraph 48 line 1-10). Sugai et al. further discloses relaying information for routing dynamically generated, added, changed or deleted by recognizing the configuration of the network in operation (page 1 paragraph 8 line 1-5).

With regard to claim 4, Sugai et al. teaches the method recited in claim 1.

Wherein said control device further comprises update means for updating a first temporary routing control information received by said reception means to a second temporary routing control information newly received by said reception means when a predetermined time elapsed after said first temporary routing control information is stored, and then storing said second temporary routing control information in storage means as routing control information. Sugai et al. discloses having a network relay apparatus such as a router 1 ("control" device) with a router manager (RM) 60 which exchanges the routing information with other routers and distributes the routing information to each routing processor 10 within each router (page 3 paragraph 49 line 7-10). Sugai et al. further discloses having a high speed readable and writeable header memory (e.g. header RAM 11) accessible asynchronously with the packet buffer and adapted for storing the header information which includes transfer control information that includes destination information and the action information ("temporary routing control information", page 4 paragraph 64 line 16-18) also including the header and the internal header of the input packet (page 2 paragraph 22 line 1-5). It is inferred that the

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header information is dynamic more specifically the information that is being relayed is dynamically generated, added, changed or deleted by recognizing the configurations of the network in operation (page 1 paragraph 8 line 1-5).

With regard to claim 5, Sugai et al. discloses having a *routing control device which is connected to a plurality of transfer devices for transferring packets on a network and controls the transfer route of said packets*, Sugai et al discloses having a network relay apparatus such as a router 1("control device") in fig.1 connected to a network 50 that is either a LAN, a WAN, or ATM which includes devices ("transfer devices") that are capable of transmitting packets to the network relay apparatus such as a router 1 ("control device"). Sugai et al. further discloses having a search engine 14 ("controlling the transfer route") searches the transfer control information and the action information in accordance with the header information of the packets and writes it in the header RAM 11 (Abstract and page 4 paragraph 58 line 1-15).

comprising: reception means for receiving a plurality of temporary routing control information transmitted from said plurality of transfer devices; sugai et al. discloses having a network interface 30 ("reception means") that receives packets which includes transfer control information that includes destination information and the action information ("temporary routing control information", page 4 paragraph 64 line 16-18). Again, the LAN, a WAN, or ATM which includes devices ("transfer devices") that are

capable of transmitting packets to the network relay apparatus such as a router 1 ("control device").

and control means for controlling the transfer route of said packets by using the plurality of temporary routing control information received by said reception means.

Sugai et al. further discloses having a transfer engine 13 within the network relay apparatus (e.g. router 1, "control device" fig. 1) stores the packets received from the network interface in a packet buffer and stores the header information (including the transfer control information, "temporary routing control information") in the header RAM 11. The transfer engine produces an output packet based on the information stored in the packet buffer and the header RAM and outputs it to the transfer destination (Abstract and page 4 paragraph 59 line 1-13).

With regard to claim 6, Sugai et al. discloses a *routing control method comprising: a generation step of generation means of a plurality of transfer devices generating temporary routing control information of packets;* Sugai et al. discloses having a network that can be LAN, a WAN or ATM which includes network devices that transmit packets to a network. Those devices have the capability to generate a source or destination address or any other information ("temporary routing control information") that is relevant to the transmission process.

a transmission step of transmission means of said plurality of transfer devices transmitting the temporary routing control information generated in said generation step

to a control device; Sugai et al. discloses in fig. 1 that packets are being received from a network such as a LAN 50 L, a WAN or ATM which includes devices that are capable of transferring packets with transfer control information that includes destination information and the action information ("temporary routing control information page 4 paragraph 64 line 16-18) to the network relay apparatus (e.g. router 1, "control device" fig. 1).

a reception step of reception means of said control device receiving the plurality of temporary routing control information transmitted in said transmission step; Sugai et al. discloses having a network relay apparatus such as a router 1 ("control device") which includes a plurality of routing processors (RP) 10, a crossbar switch (CS) 20, at least a network interface (NIF) 30, at least a port 40, routing manger (RM) 60 and a power supply (PS) 70...the network relay apparatus such as a router 1 ("control device") have a receiving means that receives at the network interface 30 ("receiving means", page 4 paragraph 57 line 1-8)...again each packet contains with transfer control information that includes destination information and the action information ("temporary routing control information", page 4 paragraph 64 line 16-18). It is inferred that the LAN device have the capability to transfer packets to the network relay apparatus (e.g. router 1, "control device" fig. 1).

and a control step of control means of said control device controlling the transfer route of said packets by using the plurality of temporary routing control information received in

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said reception step; Sugai et al. discloses having a network relay apparatus such as a router 1 ("control device") which includes a plurality of routing processors (RP) 10, a crossbar switch (CS) 20, at least a network interface (NIF) 30, at least a port 40, routing manger (RM) 60 and a power supply (PS) 70...the network relay apparatus such as a router 1 ("control device") have a receiving means that receives at the network interface 30 ("receiving means", page 4 paragraph 57 line 1-8)...again each packet contains with transfer control information that includes destination information and the action information ("temporary routing control information", page 4 paragraph 64 line 16-18). It is obvious that the LAN device have the capability to transfer packets to the network relay apparatus (e.g. router 1, "control device" fig. 1).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. **Claim 3** is rejected under 35 U.S.C. 103(a) as being unpatentable over Sugai et al. (PG PUB 2004/0085962) as applied to claim 1 above in further view of Furutono et al. (US Patent 6,687,230).

With regard to claim 3, Sugai et al. teaches the method recited in claim 1.

Wherein said control device further comprises reception: notification means for notifying the reception of said temporary routing control information to the transfer device which is the transmission source of said temporary routing control information, when said temporary routing control information is transmitted. Sugai discloses having a network relay apparatus such as a router 1("control device") in fig. 1 with a network interface 30 ("reception") which receives packets with transfer control information that includes destination information and the action information ("temporary routing control information", page 4 paragraph 64 line 16-18) via LAN, or a WAN, or a ATM network which includes devices that are capable of transferring packets (page 3 paragraph 48 line 1-9). However, Sugai et al. does not discloses notifying the reception of said temporary routing control information to the transfer device which is the transmission source of said temporary routing control information, when said temporary routing control information is transmitted. Furutono et al. discloses having a routing system with a node that includes a route information management unit 12 which receives resource information ("temporary routing control information") delivered from other nodes, sends node information about itself (the local node) and the resource information about other nodes and stores this information as route information (column 7 line 16-21 and fig. 7).

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It is inferred that what information the route information management unit 12 receives about the other nodes; which are transferring packets with resource information ("temporary routing control information") within the network; the route information management unit 12 will notify the corresponding node.

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to have a having a network relay apparatus such as a router 1("control device") in fig. 1 with a network interface 30 ("reception") as taught by Sugai et al. with a route information management unit 12 as taught by Furutono et al. to advantageously provide a system that the control device completely controls the routing for the devices.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DeWanda Samuel whose telephone number is (571) 270-1213. The examiner can normally be reached on Monday- Thursday 8:30-5:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Q. Ngo can be reached on (571) 272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DeWanda Samuel
5/23/2007


RICKY Q. NGO
SUPERVISORY PATENT EXAMINER